

ABSTRACT OF THE DISCLOSURE

1       Apparatus and methods for detecting high level arc faults in  
aircraft power systems are disclosed. One embodiment of the  
invention with reduced susceptibility to nuisance trips includes  
5       three low pass filters each having an output connected to a  
threshold detector. In addition, a three input comparator is  
connected to an output of each of the threshold detectors and a  
fault verification circuit is connected to an output of the three  
input comparator. An embodiment of the method of the invention  
for detecting arc faults in three phase aircraft power systems  
10      involves detecting at least one of the three phases having a  
current exceeding a predetermined threshold, detecting  
differences between the three phases and generating a signal  
indicative of difference being detected between the three phases  
for a time period exceeding a predetermined duration.

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